WEIL-McLAIN

EGH

SERIES 4

COMMERCIAL GAS BOILER



NET LOAD RANGE

HOT WATER:
243,000 to
383,000 BTU/Hr.

STEAM:
875 to
1,375 sq. ft.



AMERICA'S MOST COMPLETE LINE OF CAST IRON BOILERS
RESIDENTIAL ... COMMERCIAL ... INDUSTRIAL ... INSTITUTIONAL

EGH

COMMERCIAL GAS BOILER

WEIL-McLAIN

MICHIGAN CITY, INDIANA

The Weil-McLain EGH is a medium-capacity cast iron gas boiler for heating large residences, apartments, and small commercial buildings. It is available in five sizes for hot water or steam with net I-B-R water ratings from 243,000 to 383,000 BUT/Hr.; 875 to 1,375 square feet steam.

The EGH incorporates design and construction features for ease of installation, space conservation, convenient servicing, high operating efficiency, and long life. Outstanding features include compact design, insulated steel jacket, assembled sections, stainless steel burners, and, of course, Weil-McLain cast iron construction.

STANDARD EQUIPMENT

Factory-Assembled Section Block
Insulated Extended Jacket
Horizontal to Vertical Draft Hood
Stainless Steel Burners
Burner Shield
Combination Gas Valve for 24 volt
Non-Linting Pilot Burner
Electrical Junction Box
40 VA Transformer (with receptacle for plug-in relay)
Highest-Efficiency Model-PI w/Damper
- Intermittent Electronic Ignition System and Automatic Vent Damper

High-Efficiency Model–PI
- Intermittent Electronic Ignition System

Standard-Efficiency Model (EGH-85 and 95 only)
- Constant Burning, Thermally Supervised Pilot System and Thermocouple

FOR WATER BOILERS

Built-In Air Separator
30 PSI ASME Relief Valve
Combination Pressure-Temperature Gauge
High-Limit Control (dual limit control for standard-efficiency models)

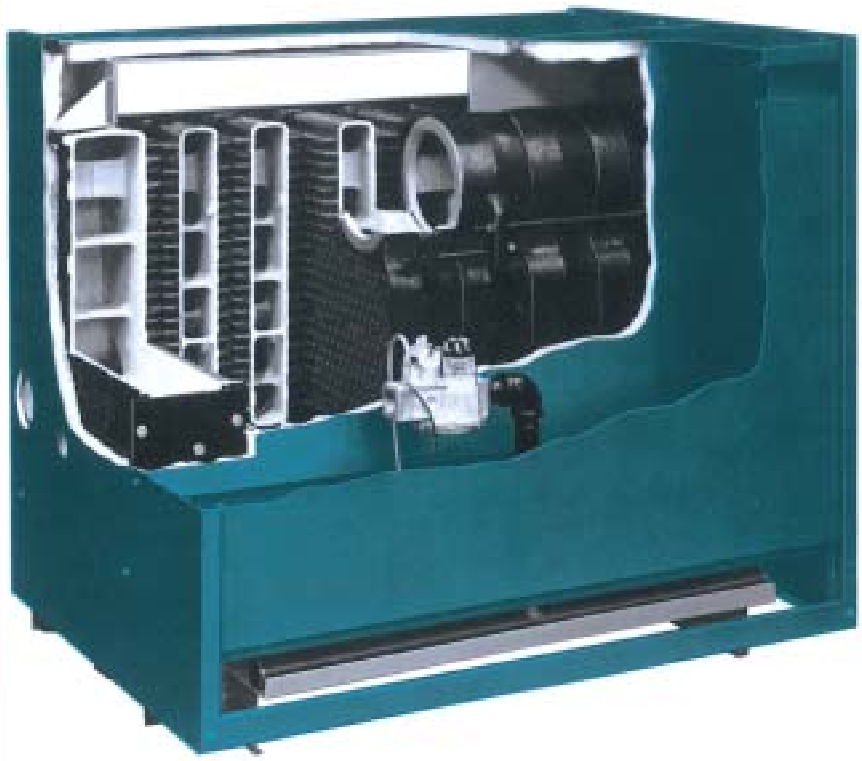
FOR STEAM BOILERS

15 PSI ASME Relief Valve
Steam Pressure Gauge
High-Limit Pressure Control (two limit controls for standard-efficiency models)
Syphon
Gauge Cocks and Glass
Low-Water Cutoff–Electrode Type

ADDITIONAL EQUIPMENT

Automatic Vent Damper (for natural gas boilers with electronic ignition)
Low-Water Cutoffs
Electronic Controls—See Price Sheet
EGH Boiler with Openings for Tankless Heaters
Tankless Heaters (water and steam)

DESIGN ADVANTAGES



1. **High operating efficiency** saves fuel. Exceeds the efficiency requirements of ASHRAE 90.1
2. **Cast iron sections** for corrosion resistance and long life.
3. **CSA design certified** for natural and propane gas.
4. **Compact design** saves valuable space ... simplifies handling and installation. The EGH is only 33½" high; 27⅝" deep.
5. **Stainless steel burners** feature quiet ignition and extinction ... no air adjustment necessary.
6. **Automatic vent damper** available as additional equipment—saves energy by preventing heat from being drawn up the chimney when burners are not operating.
7. **Wiring harness** is designed, labeled, and color-coded to help assure correct wiring.
8. **Steel jacket** features durable powder-coat finish in Weil-McLain blue ... completely insulated ... clear of the floor to prevent rust.
9. **Built-in air separator** in water boilers saves the cost of a separate device.
10. **Horizontal draft hood** reduces headroom requirements.
11. **Factory-assembled sections** and factory-assembled burners and burner drawer reduce installation time.
12. **Designed for convenient servicing** with easily accessible controls ... vertical flueways ... top cleaning.
13. **Boiler with openings for tankless heaters** available—see Additional Equipment.

CAST IRON CONSTRUCTION ... FACTORY-ASSEMBLED SECTIONS





EGH boiler sections are made of durable cast iron for long life. The sections are not face-ground, but retain the tough original skin, which is extremely resistant to corrosion. It's not uncommon for Weil-McLain cast iron boilers to last 35 years or more.

The vertical flue passages are studded with tips that cause the hot gases to swirl about, scrubbing the entire surface of each section for maximum heat transfer and increased efficiency.

The EGH boiler is shipped with the sections factory-assembled in one block. If desired, the installer can separate the boiler into two blocks to simplify handling, since short draw rods are used between the two intermediate sections in the middle of the assembly.

Modern elastomer sealing rings in the port openings assure a permanent water-tight seal. The flexibility and elastic memory of these seals (unlike metal push nipples) prevent leaks caused by thermal expansion and contraction.

A special high-temperature sealant between boiler sections assures gas tightness.

Individual sections, as well as the assembled section block are hydrostatically tested before shipping.

BURNERS AND BURNER ASSEMBLY



The EGH boiler is design certified for natural and propane gas. One-piece, high-temperature, stainless steel burners feature high efficiency, excellent flame characteristics, and quiet ignition and extinction. Burners provide fixed primary air ... no air adjustment required for approved gases.

To simplify handling and reduce installation time, the burners and manifold are assembled in a burner drawer that slides easily into the boiler.

EASY CLEANING AND SERVICING



All heating surfaces in the EGH boiler can be easily cleaned to maintain high operating efficiency. Removing the top jacket panel and the collector hood exposes all flueways for straight-through cleaning.

The jacket door and burner access panel are easily removed for access to the burners. The front and back steel base panels are lined with high-temperature insulating material; end sections rest on the floor.

BUILT-IN AIR SEPARATOR



EGH water boilers have a cast-in air separator ... no need for a separate air eliminating device. As shown in the illustration, rising air bubbles are diverted to the expansion tank through a ¾-inch tapping located next to the supply outlet.

EGH BOILER FOR TANKLESS HEATERS—ADDITIONAL EQUIPMENT

The EGH boiler is also available with openings for tankless heaters. The boiler is furnished with tankless heater openings in both the left-end and right-end sections. Thus two water heaters or two steam heaters may be used in the boiler. Heater cover plates are installed.



WATER HEATER



STEAM HEATER

TANKLESS WATER HEATER CAPACITIES

Boiler Number	Heater Number	Intermittent Draw GPM* 100°F Avg. Temp. Rise	Continuous Draw GPM** 100°F Avg. Temp. Rise	Inlet and Outlet Tappings	Temp. Control Tapping
WATER					
EGH-85†	E-626	5.50	5.60	½"	¾"
EGH-95†	E-632	5.50	5.50	½"	¾"
EGH-105	E-632	5.75	5.75	½"	¾"
EGH-115	E-632	6.00	6.00	½"	¾"
EGH-125	E-632	6.00	6.00	½"	¾"
STEAM					
EGH-85	35-S-29	4.00	5.00	¾"	¾"
EGH-95	35-S-29	4.00	5.00	¾"	¾"
EGH-105	35-S-29	4.00	5.00	¾"	¾"
EGH-115	35-S-29	4.00	5.00	¾"	¾"
EGH-125	35-S-29	4.00	5.00	¾"	¾"

Weil-McLain ratings based on 60 PSIG domestic water pressure at heater.

*Gallons of water per minute heated from 40°F to 140°F with 200°F boiler water temperature.

**Continuous draw—no recovery period.

†Tankless heater not available for EGH-85 and 95 with standing pilot.

RATINGS

Boiler Number	Input MBH+	Gross Output MBH+	Net I-B-R Ratings** Sq. Ft. Steam	Steam MBH+	Water MBH+	Net Sq. Ft. Water ▲	Boiler HP	Supply Tappings No. & Size	Return Tappings No. & Size	Dimensions in Inches D	W	Gas Connection Size† Natural	Propane	Draft Hood Outlets No. & Size	I-B-R Chimney Size***	Approx. Shipping Weight Lbs.
EGH-85-*	349	280	875	210	243	1,620	8.4	2–3"	2–2½"	9	38¼	¾"	¾"	1–9"	9" I.D. x 20'	845
EGH-95-*	400	320	1,000	240	278	1,855	9.6	2–3"	2–2½"	10	42½	¾"	¾"	1–10"	10" I.D. x 20'	880
EGH-105-*	450	360	1,125	270	313	2,085	10.8	2–3"	2–2½"	10	46¾	1"	1"	1–10"	10" I.D. x 20'	975
EGH-115-*	500	400	1,250	300	348	2,320	11.9	2–3"	2–2½"	12	51	1"	1"	1–12"	12" I.D. x 20'	1,065
EGH-125-*	550	440	1,375	330	383	2,550	13.1	2–3"	2–2½"	12	55¼	1"	1"	1–12"	12" I.D. x 20'	1,145

*Add to boiler number "W" for Water, "S" for Steam. Add "PI" to designator for intermittent electronic ignition system (standard for EGH-105 through 125). Add "PI w/Damper" to designator for intermittent electronic ignition system with automatic vent damper. Add "T" to designator for boiler with tankless heater openings. (See additional equipment.)

+MBH refers to thousands of BTU per hour.

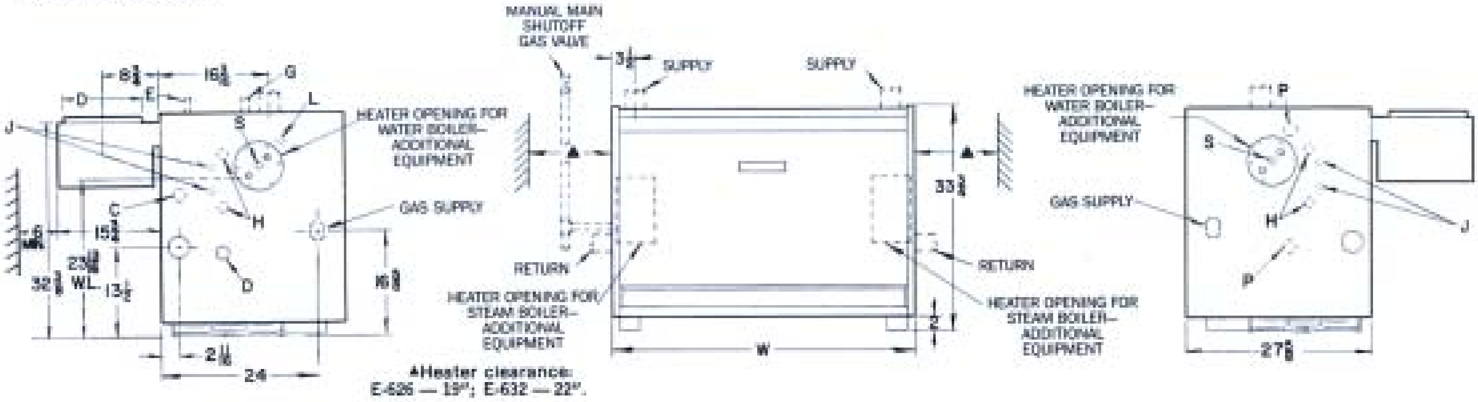
**Net I-B-R ratings are based on net installed radiation of sufficient quantity for the requirements of the building and nothing need be added for normal piping and pick-up. Steam ratings are based on a piping and pick-up allowance of 1.333; water ratings on an allowance of 1.15. An additional allowance should be made for unusual piping and pick-up loads. Ratings shown are for elevations up to 2,000 feet. For elevations above 2,000 feet, ratings should be reduced at the rate of 4 percent for each 1,000 feet above sea level.

▲Based on average water temperature of 170°F in radiators.

†Sizes shown are gas connection sizes. Gas piping from meter to boiler to be sized according to local utility requirements.

***Chimney size based on lined chimney.

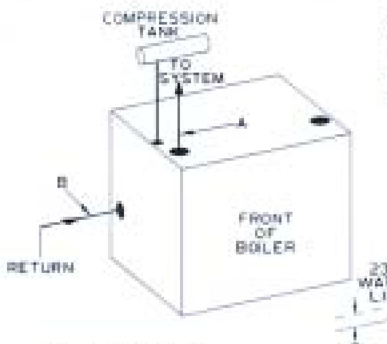
NOTE: Boiler is CSA design certified for installation on noncombustible flooring only. Water boilers tested for 50 PSI working pressure.



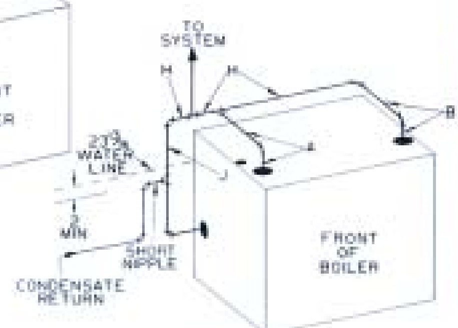
LEFT SIDE FRONT RIGHT SIDE

RECOMMENDED PIPING CONNECTIONS

Note: Supply and return sizes for water boilers refer to minimum size of pipe connected to boiler for 20°F or higher temperature drop between supply and return.



WATER BOILERS



STEAM BOILERS

WATER BOILER SIZE	PIPE SIZE A (Supply)	B (Return)
EGH-85 and EGH-95	2"	2"
EGH-105 through EGH-125	2½"	2½"

STEAM BOILER SIZE	RISER PIPE SIZE A	B	HEADER* H	EQUALIZER J
EGH-85 and EGH-95	2"	2"	3"	1½"
EGH-105	2½"	2½"	3"	1½"
EGH-115 and EGH-125	2½"	2½"	4"	1½"

*24 minimum from waterline to header.

CONTROL TAPPINGS

LOCATION	SIZE	STEAM	WATER
C	¾"	Probe-Type Low-Water Cutoff	Probe-Type LWCO (when used)
D	¾"	Drain	Drain
E	¾"	Safety Valve	Safety Relief Valve
G	¾"	Plugged	Piping to Compression Tank or Auto. Air Vent
H	½"	Gauge Glass and/or Optional Low-Water Cutoff	Combination Pressure-Temperature Gauge
J*	¾"	Try Cock Tappings	—
L	¼"	Plugged	Combination Pressure-Temperature Gauge
P	1"	Float-Type Low-Water Cutoff, Pressure Limit Control, and Pressure Gauge; or Low-Water Cutoff and Feeder Combination; or Low-Water Cutoff and Pump Control	Float-Type Low-Water Cutoff; or Low-Water Cutoff and Feeder Combination; or Low-Water Cutoff and Pump Control
S	1½" (Steam)	Skim Tapping	Limit Control
	¾" (Water)	—	Limit Control

*Available only on special request.
NOTE: Limit control and supply piping must be on the same end of the boiler.

In the interest of continual improvement in products and performance, Weil-McLain reserves the right to change specifications without notice.

WEIL-McLAIN

Locate our Sales Offices by visiting our website:
www.weil-mclain.com

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